

XVIII. *Characters of EMBIA, a Genus of Insects allied to the White Ants (Termites); with Descriptions of the Species of which it is composed.* By J. O. WESTWOOD, Esq., F.L.S.

Read March 4th, 1834.

THE extraordinary œconomy and destructive habits of the White Ants have attracted so great a share of the attention of naturalists, that every object with which they are allied is necessarily rendered worthy of observation. I need therefore offer but little apology for submitting to the Linnean Society the following descriptions of several singular insects possessing a very close affinity with the *Termites*, feeling convinced that this circumstance alone would render my paper acceptable, although unaccompanied (as our descriptions of exotic insects are unfortunately too often compelled to be) by any account of their habits and *modus vivendi*: moreover, the extreme rarity of the insects in question may be urged in support of their interest, since it is presumed that of the three exotic species of which the genus *Embia* is now composed a single specimen only of each has hitherto come under the observation of entomologists. Another interesting peculiarity arises from the fact that each of these three insects is from a different quarter of the globe, and is distinguished by characters of a higher rank than mere specific distinction, whence I have been under the necessity of considering each as a distinct subgenus. The singular form of the anterior tarsi and the white lines on the wings of all the species are also worthy of attention.

In the Annulose portion of the great national French work on Egypt, which, unfortunately for science, from the overwhelming number of microscopic observations therein exhibited, deprived the unfortunate Savigny of sight, we find two beautiful figures, accompanied by elaborate details of an insect bearing considerable resemblance to the *Termes*. In consequence, however, of the circumstances connected with the publication of the Entomological

portion of this work, no characters were given of the insects figured in it. In the *Familles Naturelles du Règne Animal*, 1825, we however find a second genus introduced into the family *Termitinæ* by Latreille, under the name of *Embia*, with the short observation, "Voisin du précédent (*Termes*) mais à antennes différentes\*." In the 2nd edition of the *Règne Animal*† this second genus is referred to Savigny's insect, with the observation, "Des insectes des contrées méridionales de l'Europe et d'Afrique, analogues aux *Termès*; mais à tête plus large que le corselet, à tarse de trois articles, à ailes ne dépassant guère l'abdomen, ou nulles, ayant les pieds comprimés, les deux jambes antérieures plus larges, sans yeux lisses, et dont le corselet est allongé, forment le genre que j'ai indiqué sous le nom d'*Embie* (*Embia*); il est figuré dans le grand ouvrage sur l'Égypte."

I know not upon what authority Latreille here indicated Europe as the locality of this insect; it will be seen, however, that other species of the genus inhabit both Asia and South America: neither can I decide from what materials he was led to state that they are sometimes wingless, as in Savigny's figures they are represented with wings; from analogy, however, they may be fairly considered as occurring without these organs in those states in which the *Termites* are destitute of them. Moreover, in Savigny's figures and in the other species the head is neither larger nor broader than the thorax, and the posterior femora are as large as the anterior. No further account has been published of this genus; the subsequent description is consequently entirely drawn up from Savigny's figures, the accuracy of which no one will venture to doubt, and which I have added to my plate. Of the second species, a magnified figure was published in Mr. Griffith's English translation of the *Règne Animal* under the name of "*Embius? brasiliensis*, G. R. Gray," with the observation, "We insert a figure of a singular insect, which bears some similarity to the genus *Embia*, but differs in having the antennæ as long as the body, the thorax much longer and more separate from the head, which is rounded posteriorly, the terminal joints of the palpi rather larger; it therefore may be formed into a distinct subgenus, which Mr. Gray has named *Olyntha*. The species is from South America, therefore is named *brasiliensis*." Unfortunately no indication of the natural size of this insect was given; and the

\* p. 437.

† Vol. v. p. 256, note.

details with which I had illustrated the figure in question (published from my drawing) remain unpublished. These, therefore, I have introduced into my Plate.

The third species has been unnoticed by entomologists; and it is to the liberality of W. W. Saunders, Esq., F.L.S., &c. (by whom it was captured in India,) that I am indebted for my specimen, which was the only one in his collection. When first examined the wings were matted upon the abdomen, and the insect had all the appearance of a small earwig: this similarity is not merely external, since the structure of the mouth is nearly identical.

GENUS. *EMBLIA*. Latr.

*Character Generis.*

*Corpus* elongatum

*Thorax* elongatus.

*Alæ* abdomine haud longiores.

*Femora* antica et postica dilatata.

*Tarsorum* anticorum articulus 1us dilatatus.

*Descriptio Generis.*

*Corpus* elongatum, depressum, æquè latum.

*Caput* ovatum, posticè paullò angustius, thoracis latitudine, depressum. *Oculi* lateralitèr antici, ovales, anticè subemarginati. *Ocelli* 0. *Antennæ* filiformes, ante oculos (in sinu) insertæ, longitudine variæ, articulis 11, 15 aut 32, basilari crassiori, 2do breviori, 3tio paullò longiori. *Labrum* breve, transversum, angulis anticis rotundatis, ciliatum, integrum, *clypeo* transversè affixum. *Mandibule* corneæ, mediocres, elongato-trigonæ, dentibus duobus aut tribus brevibus, acutis apicalibus. *Maxillæ* lobo externo galeiformi gracili, ad basin subarticulato, intùs subexcavato, lobo interno majori arcuato, apice acuto, bidentato, intùs ciliato. *Palpi maxillares* maxillis paullò longiores, filiformes, articulis 4 aut 5, articulis brevibus, ultimo paullò longiori, apice subacuminato. *Mentum* transverso-quadratum, coriaceum. *Labium* membranaceum, menti longitudine, apice quadrifidum, laciniis externis magnis, rotundatis, depressis, ciliatis, internis brevibus acutis. *Palpi labiales* breves, triarticulati, articulo ultimo longiori.

*Thorax* oblongus. *Prothorax* distinctus, lamellâ depressâ subquadratâ anticè angustiori supertectus. *Mesothorax* et *metathorax* subquadrati, singulo suprâ lamellâ magnâ, scutelliformi, coriaceâ, depressâ, triangulari (posticè angustato) supertecto. *Sterna* elongata.

*Alæ* subæquales (anticæ paullò majores), subopacæ, longæ, angustæ, abdomen horizontalitè incumbentes, et apicem ejus attingentes, nervis perpaucis, longitudinalibus, interdum at rarè nervis transversis (locis irregularibus) connexis, vittis inter nervos longitudinales albis aut hyalinis, nervo subcostali incrassato, nervis duobus contiguis, et cum illo parallelis (uno antico, altero postico).

*Abdomen* elongatum, suprâ planum, vel depressum, appendice brevi, styliformi, quasi articulatâ, ex utroque latere, anum versus, exeunti.

*Pedes* breves, femoribus anticis et posticis dilatatis, tibiis subcompressis, calcariibus obsoletis, tarsis 3-articulatis, articulo 1mo (in pari antico) dilatato, clypeato, articulo 2do omnium brevissimo.

Sexûs differentia latet.

Genus, quoad affinitates, *Termites* cum *Eusthenid* Westw. inter *Perlidas* conjungens.

Sectio 1. *Palpi maxillares* 5-articulati. *Antennæ* thorace breviores, articulis subtùs 20.

Subgenus 1. *EMBIA*. Latr. TAB. post., fig. 1—1h.

*Antennæ* 15-articulatæ; *alæ* nervo 3tio interno cum 4to nervis transversis connexo, hoc trifido.

Species 1. *Embia Savignii*. Westw.

*Savigny*, Description de l'Égypte; Neuroptera, pl. 2. f. 9.

Long. corp. lin  $4\frac{1}{2}$ . Expans. alar. lin.  $8\frac{1}{4}$ .

*Habitat* in Ægypto.

*Nota*. Descriptio specifica hujus insecti, quoad colores, deest. *Alæ* obscuræ, lineis hyalinis inter nervos longitudinales.

Dixi in honorem Savignii—"patientiæ" exemplar—illustrissimus, infelicissimus.



Fig. 1

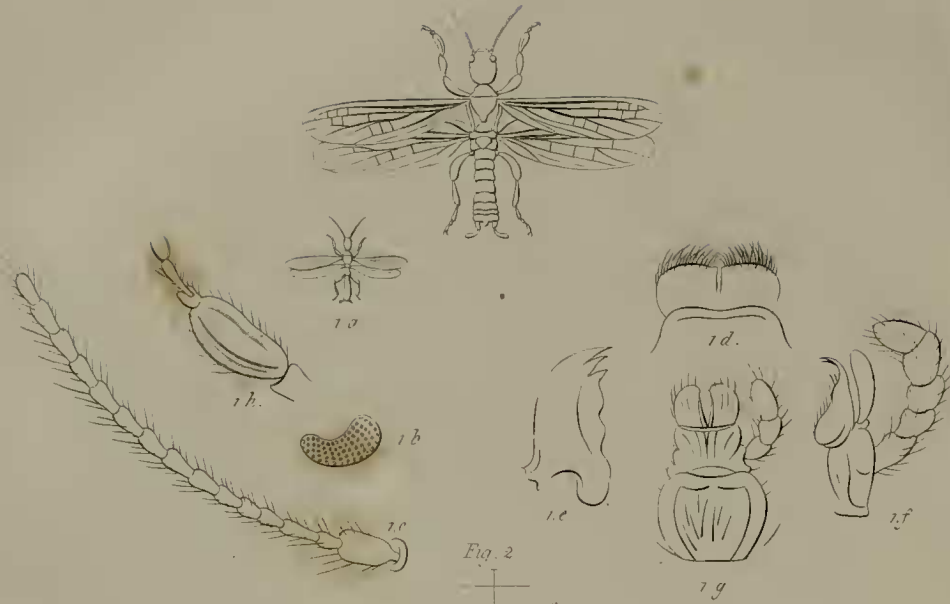


Fig. 2



Fig. 3

